APPENDIX A

Definition of Pollution Prevention

Pollution prevention is defined as the use of materials, processes, and practices that reduce or eliminate the generation and release of pollutants, contaminants, hazardous substances, and wastes into land, water, and air. Pollution prevention includes practices that reduce the use of hazardous materials, energy, water, and other resources along with practices that protect natural resources through conservation or more efficient use. Within the Department, pollution prevention includes all aspects of source reduction as defined by EPA, and incorporates waste minimization by expanding beyond the EPA definition of pollution prevention to include recycling. Pollution prevention is achieved through:

- equipment or technology selection or modification, process or procedure modification, reformulation or redesign of products, substitution of raw materials, waste segregation, and improvements in housekeeping, maintenance, training, or inventory control;
- increased efficiency in the use of raw materials, energy, water, or other resources, including affirmative procurement; and
- recycling to reduce the amount of wastes and pollutants destined for release, treatment, storage, and disposal.

Pollution prevention can be applied to all DOE pollution-generating activities, including:

- manufacturing and production operations;
- facility operations, maintenance, and transportation;
- laboratory research;
- research, development, and demonstration;
- weapons dismantlement;
- stabilization, deactivation, and decommissioning; and
- legacy waste and contaminated site cleanup.

The Department is faced with the challenge of removing and treating wastes already generated from past production and manufacturing operations. Facility and equipment stabilization, deactivation and decommissioning, and weapons dismantlement activities will also result in significant amounts of wastes that must be handled. Many pollution prevention techniques may not directly apply to wastes that were generated and media that were contaminated by previous practices (non-routine wastes). However, two techniques, waste segregation and recycling, will be key to reducing the amount of such wastes that would otherwise require additional treatment and disposal.

Additional waste and pollutants will be generated in the process of conducting restoration and dismantlement activities. Pollution prevention is applicable to the generation of secondary wastes and will be incorporated into remedial investigations, feasibility studies, design, and execution of all restoration and dismantlement projects. Restoration projects will be performed in a manner that reduces or prevents the generation of new waste and pollutants, and reduces the further release or spread of contamination.